

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-46 Cancelled

47. (Currently Amended) An isolated nucleic acid molecule comprising SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,
or an RNA equivalent thereof,
or a nucleic acid completely complementary to said isolated molecule, ~~capable of base-pairing according to the standard Watson-Crick complementarity rules,~~
~~or a nucleic acid substantially complementary to said isolated molecule which is capable of hybridizing to the nucleic acid molecule under the following stringent conditions:~~
~~hybridization at 40°-65 °C for 14-16 hours in a hybridization solution at pH 7.8,~~
~~containing 0.9 M NaCl, 0.12 M Tris-HCl, 6mM EDTA, 0.1M sodium phosphate buffer,~~
~~0.1% SDS and 0.1% polyvinylpyrrolidone,~~
~~followed by three 15-minute washes at 40°-65 °C to remove unbound probes in a solution at pH 7, containing 0.075 M NaCl, 0.0075 M Na Citrate and 0.1% SDS.~~

48. (Currently Amended) An isolated nucleic acid molecule consisting of
SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6,
or an RNA equivalent thereof,
or a nucleic acid completely complementary to said isolated molecule, ~~capable of base-pairing according to the standard Watson-Crick complementarity rules,~~
~~or a nucleic acid substantially complementary to said isolated molecule which is capable of hybridizing to the nucleic acid molecule under the following stringent conditions:~~
~~hybridization at 40°-65 °C for 14-16 hours in a hybridization solution at pH 7.8,~~
~~containing 0.9 M NaCl, 0.12 M Tris-HCl, 6mM EDTA, 0.1M sodium phosphate buffer, 0.1%~~

~~SDS and 0.1% polyvinylpyrrolidone,~~

~~followed by three 15 minute washes at 40°-65 °C to remove unbound probes in a solution at pH 7, containing 0.075 M NaCl, 0.0075 M Na Citrate and 0.1% SDS.~~

49. Canceled

50. Canceled

51. Canceled

52. (Previously Presented) The isolated nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO: 6.

53. (Currently Amended) An isolated nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, or an RNA equivalent thereof;
~~or a nucleic acid complementary to said isolated molecule, capable of base pairing according to the standard Watson-Crick complementarity rules.~~

54. (Currently Amended) An isolated nucleic acid molecule consisting of a the nucleotide sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5 or SEQ ID NO: 6 or an RNA equivalent thereof.

55. (Currently Amended) An isolated A probe which
a) targets *Shigella flexneri* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules;~~

b) targets *Shigella sonnei* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a

nucleic acid completely complementary to said fragment, ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules,~~

c) targets *Shigella dysenteriae* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules,~~

or

d) targets *Shigella boydii* comprising a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules.~~

56. (Currently Amended) A probe which

a) targets *Shigella flexneri* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules,~~

b) targets *Shigella sonnei* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules,~~

c) targets *Shigella dysenteriae* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, ~~molecule, capable of base pairing according to the standard Watson-Crick complementarity rules,~~

or

d) targets *Shigella boydii* consisting of a fragment from greater than 10 bases in length up to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid completely complementary to said fragment, molecule, capable of base pairing ~~according to the standard Watson-Crick complementarity rules.~~

57. (Currently Amended) A probe as in claim 55 which ~~comprises~~ is 15-25 bases in length.

58. (Currently Amended) A probe as in claim 56 which ~~comprises~~ is 15-25 bases in length.